Prepared for Child and Youth Mental Health Services - British Columbia Ministry of Children and Family Development

Welcome

Winter 2008 — Building Children's Resilience

Welcome to the Winter 2008 issue of the *Children's Mental Health Research Quarterly,* produced by the Children's Health Policy Centre at Simon Fraser University. *The Quarterly* provides updates on the best currently available research in children's mental health. Our theme for this issue is building children's resilience, or the ability to overcome adversity. In particular, we focus on parenting interventions as a tool for promoting resilience. This theme was chosen in consultation with Child and Youth Mental Health staff at BC's Ministry of Children and Family Development. Child and Youth Mental Health funds this publication.

In this issue, we:

- Respond to frequently asked questions about resilience
- Present findings from four randomized-controlled trials of parenting interventions
- Spotlight a review of two widely used parenting programs: *Parent-Child Interaction Therapy* and the *Positive Parenting Program*
- Introduce our new *Letter to the Editors* feature

We hope you find this issue both enjoyable and useful. Please **email us** with your questions, comments and suggestions for future topics.

Next Issue

The theme for our Spring 2008 *Quarterly* will be preventing and treating childhood depression.

The Quarterly is prepared by an **interdisciplinary team** at the Children's Health Policy Centre.

We welcome people using *The Quarterly* as a reference source (for example, in preparing educational materials for parents or community groups). Please cite our work as:

Schwartz C, Waddell C, Harrison E, Garland O, Nightingale L, Dixon J & Gray-Grant, D. (2008). Building children's resilience [winter issue]. *Children's Mental Health Research Quarterly, 2:1.* Vancouver, BC: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University.

Current Articles

IN COMMENTARY

Overcoming childhood adversities

Most children face adversities during their development and most children nevertheless go on to thrive. We discuss the risk and protective factors associated with resilience, or the ability to thrive despite adversity. We then highlight the importance of relationships for resilience, particularly parenting relationships.

IN REVIEW

Fostering resilience by supporting parents

Here, we explore parenting interventions as a tool for promoting resilience. We systemically review the latest high-quality research on four parenting interventions and discuss implications for policy and practice.

IN FOCUS

Nurturing children's competencies

We summarize a recent high-quality systematic review of *Parent-Child Interaction Therapy* and the *Positive Parenting Program*, two widely used interventions. Well-conducted research continues to accumulate on these programs, highlighting their effectiveness at improving parent and child outcomes.

LETTER TO THE EDITORS

Over our first year of publication, readers have begun to respond to *The Quarterly*. We are pleased to introduce a new feature replying to these letters. We welcome further feedback and questions.

IN COMMENTARY

Overcoming childhood adversities

What is resilience?

Resilience is the ability to adapt and successfully cope with adversity. All children face adversities during their development. Some children experience challenges with peers, such as being bullied.

> Resilience is a process rather than a fixed trait or single quality

Others reside in homes where their basic needs are not met or live in communities with significant crime and limited adult involvement. Despite such negative experiences, many children adjust positively. Because risk and protective processes affect children over time[1] and affect children differently during different developmental stages, resilience is best understood as a process rather than as a fixed trait or single quality.[2] Viewing resilience as a process helps guide interventions without blaming individuals for the adversities they face.

The following table identifies individual characteristics associated with resilience:

Individual Characteristics Associated with Resilience
"Easy," engaging temperament[1]
Good learning abilities[1]
Good interpersonal skills[1]
Self-regulation skills[3]
Hopefulness[3]
Positive self-concept[1]
Ability to plan ahead[1]
Sense of personal value[4]
Internal sense of control[1] & self-efficacy[3] (e.g., belief that outcomes can be controlled by one's actions)

What adversities do children commonly confront?

Children's experiences with adversities range from a single incident (such as a car accident) to sustained exposure (such as being a victim of continuing abuse or neglect). Typically, adverse experiences are ongoing and co-occurring,[5] such as a child living in poverty with a substance-abusing parent. The risk for negative outcomes rises substantially when adverse experiences accumulate.[5] For example, when children are exposed to severe parental discord *and* a parental mental disorder, their risk for behavioural problems increases fourfold compared with exposure to a single risk factor.[5] Nevertheless, even among individuals exposed to multiple stressors, rarely do more than half develop serious and persistent problems.[1] (Please see the sidebar for a powerful study highlighting the midlife outcomes of children exposed to early, significant adversities.) Children's responses to adversity depend on their individual, family and community resources for coping. In some circumstances, adversities can even strengthen a child's resistance to later

stress, known as a "steeling effect."[2]

How important are *relationships* to building resilience?

Relationships are vital to building resilience. The parent-child relationship is particularly important.[3] The early environment provided by caregivers has a profound impact on long-term patterns of emotional, cognitive and social functioning.[6] Consistent nurturing fosters resilience and reinforces innate strengths.[3] Supportive and responsive caregivers are critical in buffering the negative effects of adversity and stress.[3] Researchers have also begun to examine the benefits of supportive teachers and peers in promoting resilience.

Which adversities are most harmful?

Experiencing maltreatment, or abuse and neglect, is "the single most deleterious environmental risk" for children.[3] Maltreatment profoundly threatens a child's resilience and the factors that foster it.[3] Harsh and inconsistent early caregiving can also lead to enduring biological and behavioural impairments.[2] Additional family and community risk factors are identified in the table below. Many of these risk factors involve variables, such as parenting, that can also promote resilience. For example, while abusive parenting is a risk factor for negative outcomes, parental warmth is a protective factor.[8]

To help children thrive, we must enhance protective factors for children, families and communities facing adversities

Risk Factors for Negative Child Outcomes

Family	Community
Abusive & neglectful parenting[3]	Association with deviant peers[5]
Low family income/parental occupational status[7]	Economically deprived neighbourhoods[8]
Low parental education[7]	Inadequate adult supervision[8]
Parental alcoholism & mental health problems[1]	Inadequate educational opportunities[8]
Teenage parenthood[7]	Insufficient access to healthcare[8]
Unstable home environment[1]	Isolation from supportive neighbours[8]

How can resilience be promoted?

To help children thrive, we must enhance protective factors and reduce risk factors for children, families and communities facing adversities. Given the enduring importance of parenting, the family environment is a vital target for intervention, particularly in the case of families at risk.[3] Accordingly, we present research in this issue on a range of parenting interventions that improve parenting and foster positive parent-child relationships.

Government staff can access original articles from BC's **Health and Human Services Library**.

References

1. Werner & Smith. 2001. *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.
2. Rutter. 2006. Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences; 1094:* 1–12.
3. Luthar & Brown. 2007. Maximizing resilience through diverse levels of inquiry: Prevailing paradigms, possibilities, and

priorities for the future. *Development and Psychopathology; 19:* 931–955.

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5. Rutter. 2000. Resilience reconsidered: Conceptual considerations, empirical findings, and policy implications. In Shonkoff & Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 651–682). New York, NY: Cambridge University Press.
6. Barlow & Parsons. 2007. Group-based parent-training programmes for improving emotional and behavioural adjustment in 0–3 year old children. *Cochrane Database of Systematic Reviews 4*.
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HIGHLIGHT

The roots of resilience

The *Kauai Longitudinal Study* is one of the first systematic prospective investigations of factors enabling disadvantaged children to thrive as adults. The study authors, Werner and Smith,[1] tracked the lives of 698 children born in 1955 on the Hawaiian island. They evaluated the impact of biological and psychosocial risk and protective factors at six points over 40 years. Werner and Smith took special interest in children identified as high-risk due to birth complications, poverty and chaotic family lives, including parental substance misuse and mental health problems. An overwhelming majority (80%) of high-risk children did not develop any serious coping problems by age 10. Furthermore, most individuals who had significant challenges in adolescence, including mental health difficulties and early pregnancies, had positive and satisfying lives at age 40. For instance, 75% of men and 90% of women who committed juvenile offences did not have an adult criminal record.

In explaining the positive outcomes for most individuals, Werner and Smith described the *extraordinary* importance of the early childhood years in creating a foundation for resilience. The quality of sustained parent-infant interactions was identified as one of the most potent protective factors for adult adaptation. The emotional support of extended family, peers, teachers and other caring adults also played a vital role in helping individuals "beat the odds." Werner and Smith clearly identify positive relationships as "the roots of resilience" in their formative work.

Government staff can access original articles from BC's **Health and Human Services Library**.

Reference:

1. Werner & Smith. 2001. *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.

IN REVIEW

Fostering resilience by supporting parents

Parenting has a profound impact on children's well-being. Positive parent-child relationships promote children's brain development,[1] academic functioning,[2] social competence,[3] mental health[2] and self-esteem.[2] Responsive caregiving also buffers children from the negative impacts of adversity and stress.[3] In contrast, abusive parenting is one of the most significant risk factors for negative child outcomes.[4]

Given the benefits of skillful caregiving, parenting is a frequent target for intervention, particularly among groups at risk. Parenting programs can produce positive outcomes such as improvement in children's neurodevelopmental functioning and mental health.[5] They can also decrease abuse and neglect[5] and children's subsequent challenging behaviours.[3] Building on earlier findings, we set out to examine the most recent research on parenting interventions for children exposed to significant adversities.

> Responsive caregiving buffers children from the negative impacts of adversity and stress

Review methods

Our team conducted a systematic review of randomized-controlled trials (RCTs) on parenting interventions with relevance to resilience. We searched Medline, PsycINFO and CINAHL for RCTs published between 2002 and 2007. We accepted RCTs meeting our **standard criteria for assessing intervention studies**. Accepted studies also had to include interventions targeted towards families with at least one identified risk factor for negative child outcomes and had to report at least one parenting outcome at follow-up. Our methodology ensures we select the highest-quality research and allows us to critically examine whether a given intervention produces positive outcomes.

Program characteristics

We identified and assessed 88 articles of potential relevance. Of these, four articles describing four RCTs on parenting programs met our inclusion criteria. Most programs targeted low-income families with young children. All included parent education, and one also included child skills training.[6] Most programs lasted several months. The table below shows additional program and child characteristics.

Parenting Programs

Program	Targeted Risk Factor	Child Characteristics	
		Age	Gender
		Ethnicity	
Familias Unidas[7] 24 group sessions using participatory exercises, discussions & homework assignments to increase parental involvement & facilitate parent-child bonding; 2 home visits; 1 school counsellor meeting	Low family income	11–15 y	61% male
		100% Hispanic American	
Family Check-up[8] 3 home visits emphasizing parenting strategies, parent involvement & social concerns (e.g., unemployment) to reduce problem behaviour & improve parenting practices & family well-being	Low family income Maternal depression/ substance abuse	17–27 m	100% male
		48% African American 40% Caucasian 12% Mixed ethnicity	
Nurse/Paraprofessional Home Visitation[9] 25 home visits using behavioural change strategies to promote competent child care & positive parent-child interactions & improve maternal health–related behaviours & personal development	Low family income	Prenatal	NR
		15% African American 3% American Aboriginal & Asian 35% Caucasian 47% Hispanic American	
SAFEChildren[6] 22 group sessions using problem-solving, skills practice & parent-school engagement to increase parenting skills, promote healthy development & reduce family isolation; 44 child tutoring sessions emphasizing reading skills	Low-income neighbourhood	5–6 y	51% male
		43% African American 58% Hispanic American	

y = years m = months NR = Not reported

Study characteristics

All studies were conducted in American cities. Retention rates were excellent, with outcome data at final follow-up reported for 86–98% of participants. All interventions were compared to a no-intervention control. Although all studies assessed parenting, no study specifically assessed resilience in children.

Study findings

All interventions led to beneficial parent and child behaviour outcomes. *SAFEChildren* and *Nurse Home Visitation* resulted in additional positive child outcomes, including improved language, reading and concentration skills. *Home Visitation* also lowered maternal risk factors. For example, nurse visits led to significantly lower rates of domestic violence, and paraprofessional visits led to improved maternal mental health. Notably, many positive outcomes were found *only* in the highest-risk families, such as those headed by low-income mothers who also had mental health problems.

> Programs that encourage warm and consistent parenting, especially among mothers facing significant adversities, improve the lives of both children and families

Program Outcomes at Follow-Up

Program	Intervention significantly better than controls on measures of:	No difference between intervention and controls on:
Familias Unidas[7]	At 3-month* follow-up: - Parental involvement - Child behaviour problems	- Child school bonding/academic achievement
Family Check-up[8]	At 12-month follow-up: - Maternal involvement *Among depressed mothers & children with high levels of discomfort in novel situations:* - Child destructive behaviours	- Child aggression
Nurse Home Visitation[9]	At 24-month follow-up *among low-resource mothers† only:* - Home environment supporting early learning - Child language development - Child executive functioning - Child behavioural adaptation	- Sensitive-responsive mother-child interactions - Child emotional regulation - Child externalizing behaviours
Paraprofessional Home Visitation[9]	At 24-month follow-up: - Sensitive-responsive mother-child interactions *Among low-resource mothers† only*: - Home environment supporting early learning	- Child language development - Child executive functioning - Child behavioural adaptation - Child emotional regulation - Child externalizing behaviours
SAFEChildren[6]	At 6-month follow-up: - Parental involvement in child education - Child reading *Among highest-risk families only:* - Parental monitoring - Child aggression - Child concentration	- Parental discipline - Family cohesion, beliefs & structure - Child attitude to school & teacher - Child hyperactivity - Child social skills - Child leadership - Child adaptability

*Although *Familias Unidas* produced overall significant improvements, the authors did not specify which times the intervention was significantly better than the control.
† "Low resource" classification based on scores <50th percentile on a composite measure of intelligence, mental health and mastery.

Interpretation

In our review of high-quality research published in the past five years, we identified four targeted parenting programs — *Familias Unidas*, *Family Check-up, Nurse/Paraprofessional Home Visitation* and *SAFEChildren* — that significantly improved both parenting outcomes and children's behavioural outcomes. Our review suggests that programs encouraging warm and consistent parenting improve the lives of both children and families, especially among mothers facing significant adversities.

Our review focused on parenting programs targeted towards at-risk groups. Targeted programs can address both the causes and consequences of adversities faced by children, families and communities. Most programs were also targeted to parents of young children. Although both children and youth benefit from improved parenting, intervening early in life has the strong advantage of limiting the adversities faced by children. Other core elements shared by most reviewed programs are identified in the table below.

Core Elements in Most Reviewed Programs
Teaching specific parenting skills
Facilitating improved parent-child relationships
Promoting the use of additional health & human services based on individual family needs
Encouraging parents to develop relationships with supportive adults

In selecting specific programs for a given community, high-quality research is only one of many important factors to consider. Issues such as cultural relevance and community preferences, needs and goals must also be taken into account. As well, many new parenting programs have yet to be thoroughly evaluated. This may result in community members having to consider implementing programs lacking high-quality research.

In this instance, it may be helpful to compare the key elements in new programs to those in the successful programs described in our review. Programs with more overlapping key elements should have a greater chance of success. New programs should be encouraged, as long as evaluation is built in from the outset to ensure beneficial outcomes for children and families. (Please see the sidebar for a noteworthy review of parenting programs in one Canadian city; and see our **first issue** for more findings on parenting programs that can prevent childhood mental disorders.)

Our systemic review identified a significant gap in the research literature. Although resilience in children has been studied for well over five decades,[3] many important findings have not been applied to parenting interventions for use in real-life community settings. For example, none of the programs we reviewed were specifically designed to foster children's resilience, and none assessed impacts on resilience per se. Our findings suggest this is a worthwhile area for further research, in partnership with communities.

Government staff can access original articles from BC's **Health and Human Services Library**.

References:

1. Peters. 2005. A community-based approach to promoting resilience in young children, their families, and their neighborhoods. In Peters, Leadbeater & McMahon (Eds.), *Resilience in children, families, and communities: Linking context to practice and policy* (pp. 157–176). New York, NY: Kluwer Academic / Plenum Publishers.
2. Barlow & Parsons. 2007. Group-based parent-training programmes for improving emotional and behavioural adjustment in 0–3 year old children. *Cochrane Database of Systematic Reviews 4*.
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5. Olds et al. 1998. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. *JAMA: The Journal of the American Medical Association; 280:* 1238–1244.
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effects of the family check-up in early childhood. *Journal of Consulting and Clinical Psychology; 74:* 1–9.

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Highlight

Research informing practice:

The realities in one Canadian city

Two Canadian researchers, McLennan and Lavis,[1] recently investigated parenting programs being implemented in one mid-size Canadian city. They set out to assess the quantity and quality of research supporting each of the implemented programs. Of the 12 programs offered, only three had prior RCT evaluations. The others had evaluations based on much weaker research methodologies. Overall, the 12 implemented programs (even those studied with RCTs) had *weak* or *no* research supporting their use.

The community offered no parenting programs with strong positive outcomes based on replicated RCTs. The community also had no systematic process for ensuring implemented programs were supported by research. The authors noted that community agencies may use programs not supported by research for some compelling reasons: limited access to research findings; lack of well-researched programs fitting with agency mandates; and presumed high costs for some “evidence-based” programs.

In interpreting these findings, we propose that researchers could greatly assist community agencies by undertaking rigorous evaluations of new programs designed to enhance children’s resilience. They could also engage in more education and consultation to assist policy-makers, practitioners and other community members in deciding which programs to implement. It is important for individuals selecting programs to ensure that the most effective programs possible are chosen — ones supported by rigorous evaluations if not by RCTs. This is in keeping with the collective goal we all share to improve children’s lives.

Government staff can access original articles from BC’s **Health and Human Services Library**.

Reference:

1. McLennan & Lavis. 2006. What is the evidence for parenting interventions offered in a Canadian community? *Canadian Journal of Public Health; 97:* 454–458.

IN FOCUS

Nurturing children's competencies

Parent-Child Interaction Therapy (PCIT) and *Positive Parenting Program (Triple P)* are two intervention programs that have been widely used in the United States and Australia. Both have been implemented with at-risk families. The table below identifies features of these two programs.

> Programs that increase caregiver sensitivity and responsiveness are a good starting point for fostering resilience

Program Features

Features	*Parent-Child Interaction Therapy (PCIT)*	*Positive Parenting Program (Triple P)*
Theoretical framework	Attachment theory	Applied behaviour analysis Developmental models of social competence Developmental psychopathology
Goal	Changing parenting behaviours to improve externalizing behaviours in children ages 4 to 7	Promoting positive parenting & caring relationships between parents & children ages 2 to 16
Versions	Standard Abbreviated Standard + Motivational Enhanced (Standard + Motivational + Individual counselling)	Standard Group Enhanced (Individual + Relationship issues) Self-directed Media
Teaching methods	Didactic presentations Direct in vivo coaching Role-play Homework	Didactic presentations Individual/small-group activities Role-play Homework
Session #	10 to 12	8 to 13

Thomas and Zimmer-Gembeck[1] recently published a systematic review examining the effectiveness of these two programs. They included 13 *PCIT* and 11 *Triple P* studies, 20 of which were RCTs. Because none of the RCTs published within the search dates for our systematic review included follow-up outcomes, they failed to meet our inclusion criteria. We include a follow-up criterion because of the importance of evaluating the longer-term impact of programs for children. We also chose to highlight this review given the meritorious outcomes associated with these two parenting programs.

The effectiveness analyses

Both programs led to parenting improvements, including increased warmth and self-efficacy, and reduced hostility and stress. Most versions of the programs also reduced negative child behaviours, including aggression and tantrums. In the few studies with follow-up data, positive effects were found up to three months after program completion.

In direct program comparisons, standard *PCIT* tended to have larger effects than *Triple P* (based on parent reports of child negative behaviours and observed parent negative behaviours). There were no differences between these interventions for observed child behaviours. The authors speculated that *PCIT*'s inclusion of direct parent coaching may have been particularly beneficial.

Strong evidence suggests that *PCIT* and *Triple P* assist parents in creating better relationships with their children and in reducing behaviour problems. Programs with proven effectiveness in increasing caregiver sensitivity and responsiveness (such as *PCIT, Triple P* and those featured in our In Review article — *Familias Unidas*, *Family Check-up, Nurse/Paraprofessional Home Visitation* and *SAFEChildren)* are a good starting point for fostering resilience.

Government staff can access original articles from BC's **Health and Human Services Library**.

Reference

1. Thomas & Zimmer-Gembeck. 2007. Behavioral outcomes of Parent-Child Interaction Therapy and Triple P—Positive Parenting Program: A review and meta-analysis. *Journal of Abnormal Child Psychology; 35:* 475–495.

Letter to the Editors

Over our first year of publication, we have increasingly received feedback from our readers. Emails from policy-makers, practitioners and community members now enable us to feature a regular Letter to the Editors column. In this first column, we respond to a letter regarding the ***Multimodal Treatment of Attention-Deficit/Hyperactivity Disorder (MTA) study*** featured in our Fall 2007 issue. We hope you enjoy this new feature, and we encourage you to **send us** your questions and comments.

To the Editors:

I enjoyed your coverage of attention-deficit/hyperactivity disorder (ADHD) treatment issues. As an epidemiologist, I have a keen interest in interventions for treating this condition. My knowledge of the research led me to support pharmacological interventions in the past. However, findings from recently published articles from the MTA study have caused me to reconsider stimulants as a first-line therapy for ADHD in children. How do these new results impact on the policy and practice recommendations you recently articulated?

Rob James, PhD
Saltspring Island, BC

We thank Dr. James for raising important concerns elicited by the latest MTA findings. Recently published follow-up results revealed initial treatment assignment (including behavioural treatment, medication and standard community care) failed to make a positive impact on delinquency or substance use 22 months after the treatments were discontinued.[1] Concerns regarding long-term stimulant use were also raised as longer use was significantly related to height and weight reductions.[2]

In interpreting these new findings, it must be recognized that the study did not retain its randomized-controlled trial methodology during the follow-up. At the latest follow-up, controls were no longer employed, and children and families were free to choose their own treatments. Stimulant use was no longer required to adhere to study protocols. Higher medication use (at least 50% of days) was reported for most children. This may have been one of the reasons for more side effects being reported. The lack of controls also makes it difficult to interpret the other outcome findings.

These new findings nevertheless make our recommendation for frequent monitoring of children on stimulant (and other) medications even more critical. Caution must be exercised in using stimulant medications to treat ADHD given the potential impact on height and weight in particular. (See ***Information on Treating ADHD*** for other documented adverse events associated with stimulant use.) When practitioners and families are considering various treatment approaches, the possible side effects must be weighed against the accumulated research identifying stimulant medication as the most effective treatment for children with ADHD.

Please **email us your questions or feedback** on this issue.

Government staff can access original articles from BC's **Health and Human Services Library**.

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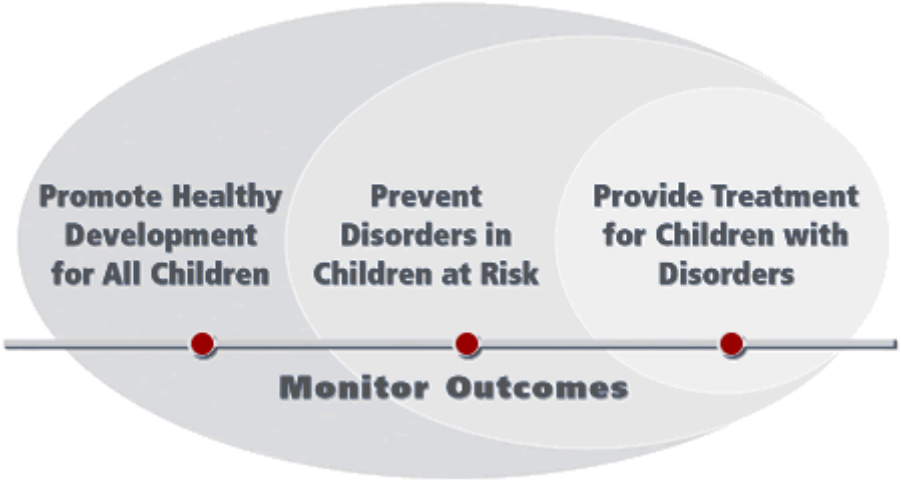
1. Molina et al. 2007. Delinquent behavior and emerging substance use in the MTA at 36 months: Prevalence, course, and treatment effects. *Journal of the American Academy of Child and Adolescent Psychiatry; 46:* 1028–1040.
2. Swanson et al. 2007. Effects of stimulant medication on growth rates across 3 years in the MTA follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry; 46:* 1015–1027.

About the Children's Health Policy Centre

We are an interdisciplinary research group in the Faculty of Health Sciences at Simon Fraser University. We focus on integrating research and policy to improve children's social and emotional well-being, or *children's mental health.* In doing so, we support a public health strategy for children's health: promoting healthy development for all children; preventing disorders in children at risk; providing treatment for those with disorders; and monitoring outcomes to ensure the effective and efficient use of public resources. Our work complements the mission of the Faculty of Health Sciences to integrate research and policy for population and public health locally, nationally and globally.

Public Health Strategy for Children's Mental Health



About *The Quarterly*

The Quarterly is an electronic publication prepared for Child and Youth Mental Health Services with British Columbia's Ministry of Children and Family Development. It provides updates on the best currently available research in children's mental health for policy-makers, practitioners, families and the public. Our research methods are detailed in our **first issue**

Please visit **www.childhealthpolicy.sfu.ca** to learn more about our ongoing work.